Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

CW 98: Polygons & Angle Measures

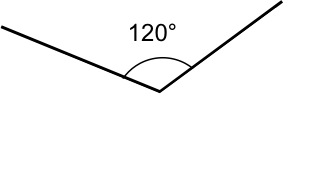
**Honors Geometry**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Determine the measure of the interior angles of the figures below. Do not assume that the polygon is a regular polygon. | | | | |
| 2*x*  3*x*  4*x*  2*x* | 2*x*  84°  2*x*  110° | 2*x*  3*x*  *x* | | 4*x*  5*x* + 20  5*x* – 10  3*x* + 10 |
| 5.  5*x*  4*x* + 2  5*x* + 6  2*x* – 2  3*x* + 5  *x* – 10  2*y* | | | 6. This is a regular hexagon, determine the value of  **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.42.39 PM.png** | |
| Macintosh HD:Users:vickyravin:Desktop:Screen Shot 2013-01-06 at 8.55.31 PM.png | | | | |

|  |  |
| --- | --- |
| 7. An exterior angle of an n-sided polygon has a measure of 60°. How many sides does the polygon have? | 8. If the sum of the interior angles of a regular polygon is 1440°, find the measure of one exterior angle. |
| 9. How many sides does **a regular** polygon have if each interior angle has a measure of:   |  |  | | --- | --- | | a) 60° | b) 156° | | c) 90° | d) 140° | | |
| **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.48.34 PM.png**10. Label all angles. | **Macintosh HD:Users:rmitrovich:Desktop:Screen Shot 2016-03-13 at 10.42.46 PM.png**11. This is a regular pentagon. Solve for x. |

12. Jennifer is drawing a regular polygon. She has drawn two sides with an interior angle of 120°, as shown below.

When Jennifer completes the regular polygon, what should be **the sum**, in degrees, of the measures of the interior angles?



13. A portion of a regular polygon is shown. How many sides does the polygon have?

